

FIGURE 1A

CHIR 12.12 light chain:

leader:

MALPAQLLGILLMLWVSGSSG

variable:

DIVMTQSPLSLTVPGEPAISCRSSQSLLYSNGYNYLDWYLQKPGQSPQVLISLGSNRASG
VPDRFSGSGSGTDFTLKISRVEAEDVGVYYCMQARQTPFTFGPGTKVDIR

constant:

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 1B

CHIR-12.12 heavy chain:

leader:

MEFGLSWVFLVAILRGVQC

variable:

QVQLVESGGGVVQPGRSLRLSCAASGFTFSSYGMHWVRQAPGKGLEWVAVISYEESNRYHAD
SVKGRFTISRDN SKITLYLQMNSLRTEDTAVYYCARDGGIAAPGPDYWGQGTLVTVSS

constant:

ASTKGPSVFPLAPASKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVF
LFPPKPKDITLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSL
TCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVVFSCSV
MHEALHNHYTQKSLSLSPGK

alternative constant region:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVF
LFPPKPKDITLMISRTPEVTCVVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSL
TCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVVFSCSV
MHEALHNHYTQKSLSLSPGK

FIGURE 2A

DNA sequence of light chain of CHIR-12.12:

5'atggcgctccctgctcagctcctggggctgctaagtctctgggtctctggatccagtggggatattgtgatgactcagctccactctc
cctgaccgtcacccctggagagccggcctccatctctcaggtccagtcagagcctcctgtatagtaatggatacaactatttgattg
gtacctgcagaagccagggcagctccacaggtcctgatctcttgggttctaatacgggcctccggggtcctgacaggttcagtggca
gtggatcaggcacagattttacactgaaaatcagcagagtggaggctgaggatgttgggtttattactgcatgcaagctcgacaaact
ccattcactttcgccctgggaccaaagtggatatcagacgaactgtggtgcacacatctgtctcattctcccgccatctgatgagcagt
tgaaatctggaactgcctctgttgtgtcctgctgaataactctatccagagaggccaaagtacagtggaggtggataacgccctcc
aatcgggtaactcccaggagagtgtcacagagcaggacagcaaggacagcacctacagcctcagcagcaccctgacgctgagcaa
agcagactacgagaacacaaaagtctacgctgcgaagtacccatcagggcctgagctcgcccgctcacaagagcttcaacaggg
gagagtgttag3'

FIGURE 2B

DNA sequence of heavy chain of CHIR-12.12 (including introns):

5'atggagtttgggctgagctgggtttccttgttgcattttaagaggtgtccagtgtcaggtgcagttggtggagctcggggaggcgt
ggtccagcctgggaggtccctgagactctcctgtgcagcctctggattcaccttcagtagctatggcatgactgggtccgccaggctc
caggcaaggggctggagtgggtggcagttatcatatgaggaagtaatagataccatgcagactccgtgaaggggccgattcacca
tctccagagacaattccaagatcacgctgtatctgcaaatgaacagcctcagaactgaggacacggctgtgtattactgtgcgagagat
gggggtatagcagcacctgggctgactactggggccagggaacctgtgtcaccgtctcctcagcaagtagcaaggcccatccgt
ctccccctggcggccgtgtagcaagagcacctctggggccacagcgccctgggctgcctgggtcaaggactacttccccgaaccgg
tgacggtgtcgtggaactcaggcgccctgaccagcggtgtcacacctcccggctgtcctacagtcctcaggactctactccctcag
cagcgtggtgaccgtgccctccagcagcttgggcacccagacctacatctgcaacgtgaatcacaagcccagcaacaccaagggtg
acaagagagttggtgagaggccagcacaggaggagggtgtctgtggaagccaggctcagcgtcctgcttgacgcatcccc
gctatgcagtcacagtcagggcagcaaggcagggccctgtgcctcttcacccggaggcctctgcccggccactcatgctcagg
gagagggtcttctggcttttccccaggctctgggcaggcacaggctaggtgcccctaaccaggccctgcacacaaaggggcagggt
gctgggctcagacctgccaagagccatatccgggaggacctgcccctgacctaaagccacccaaaggccaaactctccactccc
tcagctcggacaccttctcctcccagattccagtaactcccaatcttctctgcagagcccaaatctgtgacaaaactcacacatgc
ccaccgtgcccaggtaaagccagcccaggcctgcacctcagctcaaggcgggacaggtgccttagagtagcctgcatccagggac
aggccccagccgggtgctgacacgtccacctccatcttctcctcagcacctgaactcctggggggaccgtcagcttctcttcccccc
aaaacccaaggacacctcatgatctcccggacctctgaggtcacatgcgtggtggtggacgtgagccacgaagacctgaggtca
agtccaactggtacgtggacggcgtggaggtgcataatccaagacaaagccgaggaggagcagtacaacagcacgtaccgtgt
ggtcagcgtcctcaccgtctgcaccaggactggtgaatggcaaggagtacaagtcaaggctccaacaaagccctcccagccc
ccatcgagaaaacctctccaaagccaaaggtgggacctgggggtgcgaggggccacatggacagaggccggctcgccacccc
tctgcccgtgagagtaccgtgtaccaacctctgtccctacaggggcagccccgagaaccacaggtgtacacctgcccccatccgg
gaggagatgaccaagaaccaggtcagcctgacctgctggtcaaaggcttctatcccagcgacatcgccgtggagtgggagagcaa
tgggcagccgggagaactacaagaccacgcctcccgtgtgactccgacggctccttctctctatagcaagctcaccgtggac
aagagcaggtggcagcaggggaacgtcttctcatgctcgtgatgcatgaggctctgcacaaccactacacgcagaagacgtctcc
ctgtctccgggtaaatga3'

FIGURE 3A

CHIR-5.9 light chain:

leader:

MALLAQLLGLLMLWVPGSSG

variable:

AIVMTQPPLSSPVTLGQPASISCRSSQSLVHSDGNTYLNWLQQRPGQPPRLLIYKFFRRLSG
VPDRFSGSGAGTDFTLKISRVEAEDVGVIYCMQVTQFPHTFGQTRLEIK

constant:

RTVAAPSVFIFPPSDEQLKSGTASVVCLLNNFYPREAKVQWKVDNALQSGNSQESVTEQDSK
DSTYLSLSSTLTLSKADYEKHKVYACEVTHQGLSSPVTKSFNRGEC

FIGURE 3B

CHIR-5.9 heavy chain:

leader:

MGSTAILALLLAVLQGVCA

variable:

EVQLVQSGAEVKKPGESLKISCKGSGYSFTSYWIGWVRQMPGKGLEWMGIIYPGDS DTRYSP
SFQGOVTISADKSISTAYLQWSSLKASDTAMYICARGTAAGR DYYYYYGMDVWGQGTTTVTVS
S

constant:

ASTKGPSVFPLAPASKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVF
LFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSL
TCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSV
MHEALHNHYTQKSLSLSPGK

alternative constant region:

ASTKGPSVFPLAPSSKSTSGGTAALGCLVKDYFPEPVTVSWNSGALTSGVHTFPAVLQSSGL
YSLSSVVTVPSSSLGTQTYICNVNHKPSNTKVDKRVEPKSCDKTHTCPPCPAPELLGGPSVF
LFPPKPKDTLMISRTPEVTCVVDVSHEDPEVKFNWYVDGVEVHNAKTKPREEQYNSTYRVV
SVLTVLHQDWLNGKEYKCKVSNKALPAPIEKTISKAKGQPREPQVYTLPPSREEMTKNQVSL
TCLVKGFYPSDIAVEWESNGQPENNYKTTPPVLDSDGSFFLYSKLTVDKSRWQQGNVFSCSV
MHEALHNHYTQKSLSLSPGK

FIGURE 4A

Coding sequence for short isoform of human CD40:

```
1 atggttcgtc tgcctctgca gtgcgtcctc tggggctgct tgctgaccgc tgtccatcca
61 gaaccaccca ctgcatgcag agaaaaacag tacctaataa acagtcagtg ctgtttcttg
121 tgccagccag gacagaaact ggtgagtgac tgcacagagt tcaactgaaac ggaatgcctt
181 ccttgcggtg aaagcgaatt cctagacacc tggaacagag agacacactg ccaccagcac
241 aaatactgcg accccaacct agggcttcgg gtccagcaga agggcacctc agaaacagac
301 accatctgca cctgtgaaga aggctggcac tgtacgagtg aggcctgtga gagctgtgtc
361 ctgcaccgct catgctcgcc cggtttggg gtcaagcaga ttgctacagg ggtttctgat
421 accatctgcg agccctgccc agtgggcttc ttctccaatg tgctatctgc tticgaaaaa
481 tgcaccctt ggacaaggtc cccaggatcg gctgagagcc ctggtgtgta tccccatcat
541 ctcggggatc ctgttgcca tcctcttggt gctggtcttt atcaaaaagg tggccaagaa
601 gccaaccaat aa
```

FIGURE 4B

Encoded short isoform of human CD40:

```
1 mvrplqcvl wgclltavhp epptacrekq ylinsqccsl cpggqlvds cteftetecf
61 pgesefldt wnrethchqh kyedpnlgir vqkgtsetd tictceegwh ctseacescv
121 lhrscspgfg vkqiatgvds ticepcpvgf fsnvssafek chpwtrspgs aespaggdphh
181 lrdpvchplg aglyqkggqe anq
```

FIGURE 4C

Coding sequence for long isoform of human CD40:

```
1 atggttcgtc tgcctctgca gtgcgtcctc tggggctgct tgctgaccgc tgcctatcca
61 gaaccaccca ctgcatgcag agaaaaacag tacctaataa acagtcagtg ctgttctttg
121 tgccagccag gacagaaact ggtgagtgac tgcacagagt tactgaaac ggaatgcctt
181 ccttgccggg aaagcgaatt cctagacacc tggaacagag agacacactg ccaccagcac
241 aaatactgcg accccaacct agggcttcgg gtccagcaga agggcacctc agaaacagac
301 accatctgca cctgtgaaga aggctggcac tgtacgagtg aggcctgtga gagctgtgtc
361 ctgcaccgct catgctcgcc cggctttggg gtcaagcaga ttgctacagg ggtttctgat
421 accatctgcg agccctgccc agtcggcttc ttctcaatg tgcatctgc ttctgaaaaa
481 tgtcacctt ggacaagctg tgagacaaa gacctggttg tgcaacaggc aggcacaaac
541 aagactgatg ttgtctgtgg tcccaggat cggctgagag ccctggtggt gatcccatc
601 atctcggga tctgtttgc catcctcttg gtgctggtct ttatcaaaa ggtggccaag
661 aagccaacca ataaggcccc ccacccaag caggaacccc aggagatcaa ttctccgac
721 gatcttctg gtccaacac tgctgtcca gtgcaggaga ctttacatgg atgccaaccg
781 gtcaccagg aggatggcaa agagagtcgc atctcagtcg aggagagaca gtga
```

FIGURE 4D

Encoded long isoform of human CD40:

```
1 mvrplqcvl wgclltavhp epptacrekq ylinsqccsl cqpqklvsd cteftetcl
61 pcgeselfdt wnrethchqh kyedpnlgrr vqqkgtsetd tictceegwh ctseacescv
121 lhrscspgfg vkqiatgvsd ticepcpvgf fsnvssafek chpwtscetk dlvvqqagtn
181 ktdvvcgpd rlravvpi ifgilfaill vlvfikkvak kptnkaphpk qepqeinfpd
241 dlpgsntaap vqetlhgcqp vtqedgkesr isvqerq
```

FIGURE 5

